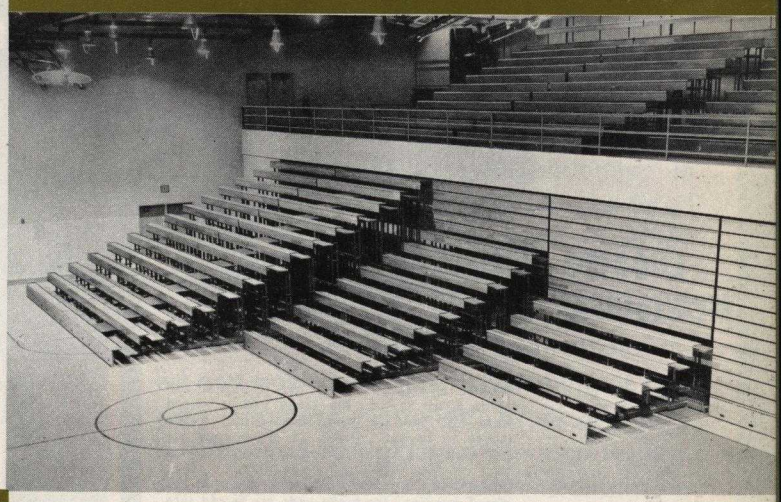
SAFWAY

SPECTATOR SEATING

TELESCOPING GYM SEATS



OPERATION... few moving parts and minimum metal against metal friction permit operating Safway Telescoping Gym Seats with the least amount of effort. Extra large wheels, straight line tracking and nylon glides at each point of metal contact help achieve this ease of operation.

SAFETY... Eight structural steel columns under each row and extensive steel bracing give Safway gym seats rugged dependability. Three separate exclusive safety devices insure complete reliability under all operating conditions.

APPEARANCE... Specially compounded sealer and high gloss varnish on seat and foot boards give Safway's vertical cabinet the finished appearance of fine wood paneling.

COMFORT... Extra wide top seat, spacious toe and heel room and inclined seats are some of the Safway features promoting spectator comfort. Choice of seat spacing dimensions lets you plan for your specific gymnasium requirements.

MULTIPLE USE... One or any number of rows can be locked open as required, for partial seating capacity for such gym activities as social affairs, chalk talks and lectures. Hydraulically raised movable gym seats are also available.

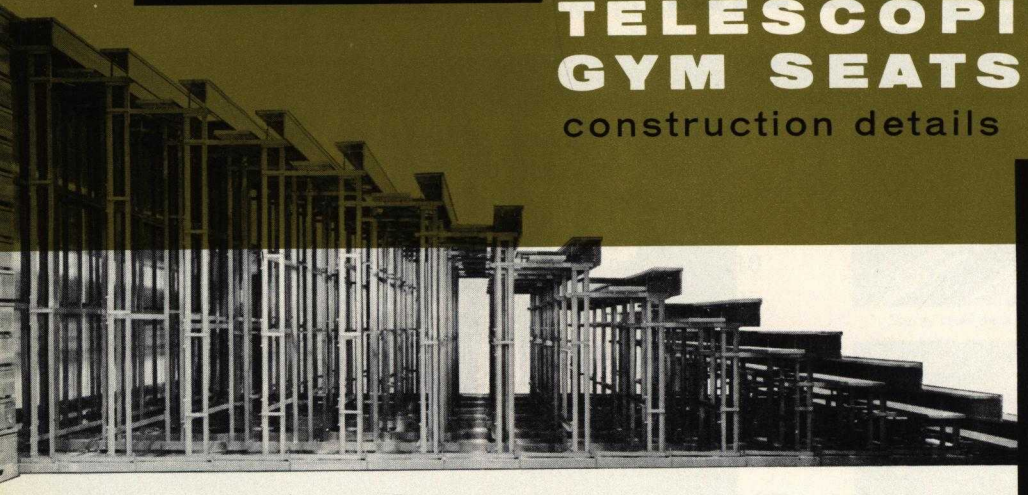
FLOOR PROTECTION... Non-marking wheels prevent scuffs and scratches and the wheels roll in adjacent paths to prevent grooving the floor. At no time does bare metal touch the floor. Floating floors are free to expand or contract without hinderance.

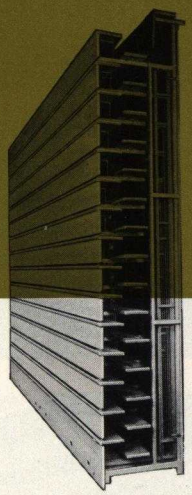
SAFWAY STEEL PRODUCTS, INC.
6228 WEST STATE STREET • MILWAUKEE 13, WIS.

SAFWAY

TELESCOPING GYM SEATS

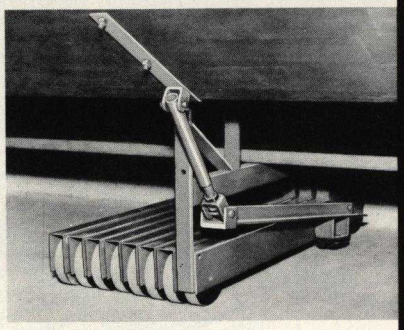
construction details





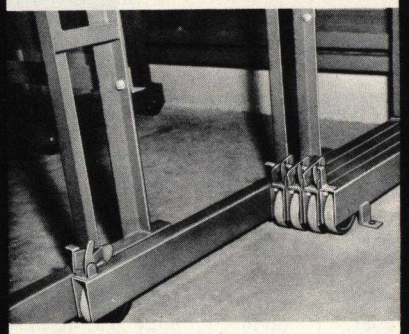
CLOSED CABINET . . . From three to twenty rows, Safway gym seats telescope into a self-contained cabinet just 3-feet deep. When nested, the cabinet face is completely vertical, eliminating projections that might injure players running close to the wall.

LOCKING MECHANISM

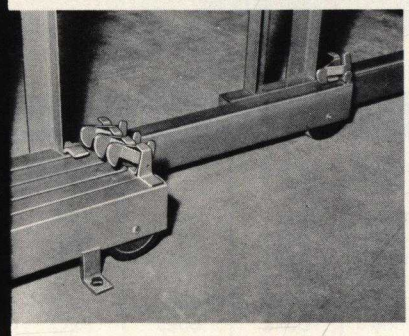


BRAKE RELEASED . . . With the first row apron board raised, the brake pad is raised from the floor, allowing the section to be moved in or out. (Note: 4 brake pads per full section).

BRAKE SET . . . With the apron board in the closed position, the brake pads are forced into contact with the floor, locking the section in any position. The apron board is equipped with a key operated cylinder lock, securing the apron boards, preventing unauthorized operation. (All locks are keyed alike).



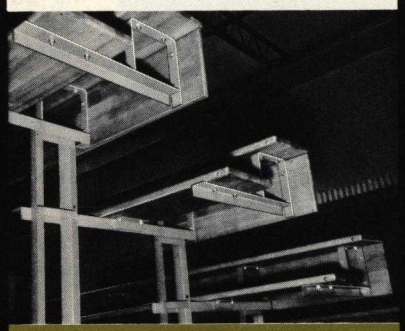
ROW LOCKS ENGAGED . . . As each row is extended individually, the row lock at the front of each wheel carriage engages the lock bar on the adjacent wheel carriage ahead. Each row is locked to the adjacent row in this manner, preventing any movement between rows. Any rearward movement, therefore, would require movement of the entire section.



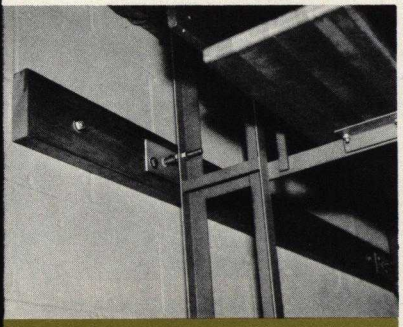
ROW LOCKS RELEASED . . . As the section is closed, the rearmost moving row takes its nested position. The projecting bar from the nested row trips the row lock, allowing the next row to move into its nested position. This process is repeated for all succeeding rows until the section is fully closed. Release of each row lock is automatic, providing a **smooth successive closing action** of individual rows. Since all rows are locked together, the section moves rearward as a unit, eliminating all binding and assuring a uniform closing action.

GENERAL OPERATION

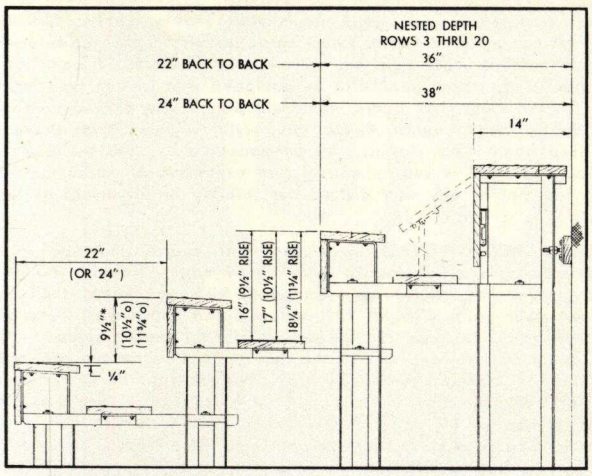
All seat rows are free standing and independent of adjacent rows. As each row is extended to its full open position, the row travels its full open distance before engaging the next row. This action sequence is repeated until the entire section is opened.



OVERHANG SUPPORTS . . . Additional steel support brackets are provided to eliminate flexing action of seat and foot boards on installations where overhang and distance between supports exceed normal design.



WALL AND FLOOR CONNECTIONS . . . The rear member of each section is connected to wood wall liners, anchored to the wall at the top and bottom and fastened with adjustable connectors. These members are mounted on wheels to allow full and free expansion and contraction of the floor. The slip connector fastened to the floor is free to move with the floor, maintaining a constant lateral base alignment of the rear member.



COMFORTABLE SEATING

Depending upon your needs, you may select the best combination of seating dimensions from the diagram above.

Each seat area has comfortably wide leg room with additional space for toe and heel movement. Each seat board slopes slightly to the rear to help spectators achieve their own best balance. And every seat is usable — even the top seats against the wall. Safway provides an extra wide top seat board for sufficient back room.

SMOOTH OPERATION

Nylon glides are provided on the metal structural members to eliminate any metal to metal friction in movement and to assure a smooth operation of the unit without binding.

STEEL COLUMNS

Eight structural steel vertical angles under every standard length row are welded into pairs to the lower wheel carriages. The columns are stabilized by angle steel braces to insure strength and rigidity.

WHEELS AND CARRIAGES

Two large wheels under each column (eight wheels under each row) ride in the industry's longest wheel carriage for extra stability. By interlocking the carriages, the wheels are locked in place under the columns transferring spectator loads directly to the floor. Each rubber wheel is non-marking and equipped with self-lubricating bearings.

MOTORIZED OPERATION AVAILABLE
NONE REQUIRED UNDER 14 ROWS

The exclusive strength, safety and comfort features described have been developed for the utmost in safety and reliability under all operating conditions. With the well-being of your spectators at stake, Safway has spared nothing in the design and fabrication of quality gymnasium seating. Safway Telescoping Gym Seats will give you many years of safe, trouble-free service.

Superior strength and operating ease are built into every Safway Telescoping Gym Seat installation.

Vertically, eight steel columns, welded into pairs, support each row of a standard section. Each row is braced against side sway by angle braces in the vertical plane. The vertical braces are extra efficient through wide spaced bolting to the columns.

Because all rows are interlocked, shock loads are evenly distributed throughout the entire structure. There are no critical parts subject to undue wear.

Safway's exclusive design incorporates a minimum of moving parts, reducing friction, drag and parts subject to malfunction. Nylon glides insure smooth movement. Large 4-inch by 1-inch flat faced wheels are self-lubricating and free moving.

Because opening or closing does not depend upon cross arms, scissors type levers, etc., each row rolls with minimum resistance. Power equipment is unnecessary.

In the open position, each row is locked in relation to the other rows, preventing any row from moving independently. In addition, any number of rows can be fixed in place. This is the most advanced safety device being offered.

From start to finish, every function of Safway Telescoping Gym Seats is designed and built for optimum capability. Every part is quality controlled. Every assembly is subjected to rigid performance testing. And, most important, every installation is guaranteed to meet all your requirements where it counts most—in your gymnasium.

FOR MORE DETAILED INFORMATION ABOUT **SAFWAY GYM SEATS** AND ENGINEERING AND PLANNING SERVICE

WRITE

SAFWAY STEEL PRODUCTS, INC.
6228 W. State Street
Milwaukee 13, Wis.

SAFWAY SPECIFICATIONS

SCOPE Furnish and install under factory trained supervision, Safway Telescoping Gym Seats as manufactured by Safway Steel Products, Inc., Milwaukee, Wisconsin, or approved equal, in accordance with plans as follows:

.....Group(s) .....feet long .....rows high

.....Group(s) .....feet long .....rows high

(Note: A group is any number of sections required for a given length of wall.) Entire installation shall be guaranteed for one year against faulty materials or workmanship.

OPERATION Gym seats shall operate on the telescoping principle and all columns, or foot and seat supports, shall roll on 4-inch by 1-inch flat faced self-lubricating rubber wheels. When closed, the front of the gym seats will present a flush vertical surface. Each row shall automatically and positively lock in relation to the adjacent rows as the gym seats are opened. Any number of rows may be pulled out and locked open by means of a friction brake operating against the floor and actuated by closing the front riser board. The gym seats shall be positively locked in the open or closed position by means of a cylinder lock mounted on the front riser board.

DESIGN (1) Gym seats shall support, in addition to their own weight, a uniformly distributed live load of not less than 100 pounds per square foot of gross horizontal projection. All seat and foot board members shall be designed for live loads of not less than 120 pounds per linear foot. Gym seats shall resist a horizontal sway force applied to the seats in a direction parallel to their length of 24 pounds per linear foot.

(2) Maximum height, open or closed, shall be .....
Maximum extended depth shall be .....
Nested depth for all rows, 3 to 20, shall be 36-inches for 22-inch back to back seat spacing, and 38-inches for 24-inch back to back seat spacing.
On wall-attached gym seats, this distance shall include a top row seat depth of 14-inches to provide as much seating comfort on the top row as on every other row.

(3) Each row shall have a depth of not less than 22-inches back to back of seat boards and a rise between rows of 10½-inches with a distance of 17-inches from seat to foot board. (A row depth of 24-inches back to back of seat boards and a 9½-inch rise with 16-inches from seat to foot board, or an 11¾-inch rise with 18¼-inches from seat to foot board may also be specified.) Horizontal toe room shall be at least 6-inches beyond foot board, and heel room shall be at least 3-inches behind foot board.

CONSTRUCTION All framework shall be of high quality rolled structural steel angles electrically welded during fabrication into the largest components that can be conveniently handled in the field. Bolted field connections will be held to a minimum. Standard sections shall be as near 16-feet in length as conditions permit. Each row of a standard section shall be supported by not less than 8 rolled structural steel angles welded into pairs to form rigid columns. Angle bracing between columns shall be adequate in size and so located that the all steel welded structure shall be entirely self-supporting before addition of wooden members. Each row shall have sets of angle braces. Each column shall be supported by two bronze bushed self-oiling 4-inch by 1-inch flat faced rubber wheels completely enclosed in a metal carriage. Metal against metal friction shall be reduced to a minimum by means of nylon glides located at the front and rear of the wheel carriages and at the top of the seat columns to permit maximum ease of operation. Gravity operated latches attached to the wheel carriages at the base of columns shall positively lock each row out with respect to each adjacent row. Each section of gym seats shall also be equipped with friction type locks operated by the front riser board which will permit any desired number of rows to be locked open. Keyed alike cylinder locks shall prevent unauthorized opening or closing. All permanent units shall be secured to the wall and floor in such a manner that expansion or contraction of the floor will not in any way disturb the stability or alignment of the gym seats.

WOODEN MEMBERS Seat and foot boards shall be solid industrial clear grade Douglas Fir with eased edges, finished 1-1/16-inches by 9¼-inches. The hinged basketball deflector board shall be edge glued clear grade Douglas Fir. Bottom apron board shall be edge glued clear grade Douglas Fir, hinged, reinforced and provided with hand holes for opening and closing the gym seats. A prop support shall hold this apron board, permitting easy access beneath the gym seats for cleaning. All riser boards shall be edge glued clear grade Douglas Fir, 25/32-inches by 7¼, 8¼ or 9½-inches. When closed, risers and seat boards shall form a vertical cabinet. Steel offset doweling is provided on ends of seat and foot boards to prevent end splitting. Laminated seat and foot boards optional.

FINISH All steel parts shall be finished with Gray baked-on enamel. Wood parts shall be factory finished on all exposed surfaces, prime coated with an Epon base finish, and hot sprayed with a final finish coat of a Golden Oak Phenolic varnish, control-dried to a tough wear-resistant hard coating. Completed wood shall be full bodied with protective coating of high lustre hard wax.

MOVABLE GYM SEAT SECTIONS Movable gym seat sections, up to ten rows high, shall be constructed to permit rolling the closed sections from area to area. Each movable section shall be raised onto oversized free-turning swivel casters for easy movement. When opened, the sections shall have the same stable characteristics as wall-attached sections.

ACCESSORIES The following accessories shall be furnished as requested:

GUARD RAILS Cadmium plated guard rails of not less than 1⅜-inches O.D. steel tubing shall be installed on the open ends of all gym seats.

END PANELS End panels shall be installed on all exposed ends of wall-attached gym seats.

AISLE STEPS Aisle steps 36-inches long and 12-inches wide shall be provided at seat level between seat boards and risers to effect a vertical aisle.

REMOVABLE SEAT AND FOOT BOARDS Removable seat and foot boards shall be provided, as required, for additional seating capacity between sections which must be kept separated because of doors, partitions, pilasters, etc.

SCORER'S TABLE A scorer's table with a tilted 8-foot by 16-inch plywood top and having a retaining lip on the lower edge shall be provided. No bolts shall be required for assembly.

NOTE: *Nothing above shall prohibit Safway from offering latest design innovations.*

TABLE OF DIMENSIONS AND CAPACITIES OF ONE STANDARD 16' SECTION

No. Rows	Capacity at 16" Per Seat	NESTED DEPTH*		EXTENDED DEPTH*		HEIGHT TOP SEAT		
		22" B-B	24" B-B	22" B-B	24" B-B	9½" Rise	10½" Rise	11¾" Rise
3	36	3'-0"	3'-2"	4'-10"	5'-2"	2'-11"	3'-2"	3'-4½"
4	48	3'-0"	3'-2"	6'-8"	7'-2"	3'-8½"	4'-½"	4'-4¼"
5	60	3'-0"	3'-2"	8'-6"	9'-2"	4'-6"	4'-11"	5'-4"
6	72	3'-0"	3'-2"	10'-4"	11'-2"	5'-3½"	5'-9½"	6'-3¾"
7	84	3'-0"	3'-2"	12'-2"	13'-2"	6'-1"	6'-8"	7'-3½"
8	96	3'-0"	3'-2"	14'-0"	15'-2"	6'-10½"	7'-6½"	8'-3¼"
9	108	3'-0"	3'-2"	15'-10"	17'-2"	7'-8"	8'-5"	9'-3"
10	120	3'-0"	3'-2"	17'-8"	19'-2"	8'-5½"	9'-3½"	10'-2¾"
11	132	3'-0"	3'-2"	19'-6"	21'-2"	9'-3"	10'-2"	11'-2½"
12	144	3'-0"	3'-2"	21'-4"	23'-2"	10'-½"	11'-½"	12'-2¼"
13	156	3'-0"	3'-2"	23'-2"	25'-2"	10'-10"	11'-11"	13'-2"
14	168	3'-0"	3'-2"	25'-0"	27'-2"	11'-7½"	12'-9½"	14'-1¾"
15	180	3'-0"	3'-2"	26'-10"	29'-2"	12'-5"	13'-8"	15'-1½"
16	192	3'-0"	3'-2"	28'-8"	31'-2"	13'-2½"	14'-6½"	16'-1¼"
17	204	3'-0"	3'-2"	30'-6"	33'-2"	14'-0"	15'-5"	17'-1"
18	216	3'-0"	3'-2"	32'-4"	35'-2"	14'-9½"	16'-3½"	18'-¾"
19▲	—	3'-0"	3'-2"	34'-2"	37'-2"	15'-7"	17'-2"	19'-½"
20▲	—	3'-0"	3'-2"	36'-0"	39'-2"	16'-4½"	18'-½"	20'-¼"

*Extended and nested depths shown above provide a top seat of approximately 14" to assure the same comfort for top row seats as on all others. Information for capacities and dimensions for higher rows than 18 available upon request.

▲19 and 20-row sections available in 18' to 20' lengths only.

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